BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: DRILLING OF BOREWELS INSTALLATION OF PUMP AND MOTORS, PROVIDING PIPELINE AND ADDITIONAL MOTOR PUMPS AND NECESSARY ACCESSORIES TO EXISTING BOREWELLS IN Ward no. 06

Sl No	Description of item	Unit	No	L	B	D	Qty	Estimate Cost Rs. 45000000.00 Rate	Amount
1	**Drilling and Providing Pump and Motor**								
	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12-13 SR)	Each BW							
			41				**41**	1938.46	**79477.00**
	Basic Rate	1882.00							
	3% area weightage	56.46							
	Total	**1938.46**							
2	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) (P.NO-47, I.NO-9.1, PRED 12-13 SR)	Rmtr							
	0 to 50 m		41	50.00			**2050.00**	315.18	**646119.00**
	50 to 100 m		41	50.00			**2050.00**	412.00	**844600.00**
	100 to 150 m		41	50.00			**2050.00**	458.35	**939618.00**
	150 to 200 m		41	50.00			**2050.00**	484.10	**992405.00**
	200 to 250 m		41	50.00			**2050.00**	560.32	**1148656.00**
	250 to 300 m		41	50.00			**2050.00**	600.49	**1231005.00**
	300 to 350 m		41	50.00			**2050.00**	622.00	**1275100.00**
	350 to above		41	50.00			**2050.00**	677.74	**1389367.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
3	Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black electric resistance continous welded midle steel tube material confirming to IS 1387/1993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR)	Rmtr							
			41	60.00			**2460.00**	1364.75	**3357285.00**
	Basic Rate	1325.00							
	3% area weightage	39.75							
	Total	**1364.75**							
4	Providing and fixing 250mm dia PVC pipe and as per specification and directions. (BWSSB SR 18-19, P.No.133 sl.no.1.11.)	Rmtr							
			41	10.00			**410.00**	1393.59	**571372.00**
	Basic Rate	1353.00							
	3% area weightage	40.59							
	Total	**1393.59**							
5	175 mm dia M.S. Casing cap (P.NO-III, I.NO-85, PRED 12-13 SR)	Each							
			41				**41**	103.00	**4223.00**
	Basic Rate	100.00							
	3% area weightage	3.00							
	Total	**103.00**							
6	M.S. Casing pipe collars 'C' Class (P.NO-III, I.NO-86, PRED 12-13 SR)	Each	41	10.00			**410**	154.50	**63345.00**
	Basic Rate	150.00							
	3% area weightage	4.50							
	Total	**154.50**							
7	Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm P No. 49 No 6.4 KPWD Electrical SR 14-15 16 swg	Sqm							
			41	1100.00	20.00		**902000.00**	0.33	**297660.00**
	Basic Rate	0.33							
8	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) (P.No -144, I.No -28, BWSSB SR	Per length							
			41	50.00			**2050.00**	92.00	**188600.00**
	Basic Rate	92.00							
10	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary nuts, bolts and washer etc., complete.... **P No. 45 No 6.7.3 KPWD Electrical SR 14-15**	No.							
	63 Amps		41	3.00			**123.00**		
							123.00	234.00	**28782.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
11	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) KPWD Electrical SR 14-15 p no 55 i7.4.4	Mtr							
			41	35.00			**1435.00**	140.40	**201474.00**
12	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces KPWD Electrical SR 14-15 p no 61 7.9	Mtr							
			41	35.00			**1435.00**	117.00	**167895.00**
13	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mmKPWD Electrical SR 14-15 p no 62 7.12.1	Mtr							
			41	2.00			**82.00**	294.58	**24156.00**
	Basic Rate	286.00							
	3% area weightage	8.58							
	Total	294.58							
14	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia ,KPWD Electrical SR 14-15 p no 55 7.2	No's							
			41				**41.00**	4317.00	**176997.00**
15	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc,KPWD Electrical SR 14-15 p no 62 7.13.2	No's							
			41				**41.00**	280.00	**11480.00**
	Basic Rate	264.00							
	3% area weightage	7.92							
	Total	271.92							
16	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches ,KPWD Electrical SR 14-15 p no 44 i no	No's							
			41				**41.00**	302.00	**12382.00**
17	Cleaning of bore well inciuding yield tetsting of borewell either using slow or fast rig for not more than 2 hours at the final depth with air compressor or suitable pump as per specification (PRED 12-13 SL NO.9.5 PAGE NO.49)	each	10				**10.00**	10128.00	**101280.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
18	Borewell Clamp Set (PWD SR 2018-19, Page No. XLVII, Sl nO. 17)	Set	41				**41.00**	1800.00	**73800.00**
19	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 17.50 HP 30 stage (P.NO-XXXXIII, I.NO-34, PWD SR 18-19)	No							
	17.5HP 30 Stage 10 extra motor		30				**30**	72126.00	**2163780.00**
	20 HP 40 Stage		21				**21**	90595.00	**1902495.00**
20	Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe B Class (SR 18-19 PWD, P.No.XLVII Sl.no. 1	Rmtr							
	for extra bore		10	335.00			3350		
			41	335.00			**13735.00**		
	Basic Rate	415.00					**17085.00**	415.00	**7090275.00**
21	Supply and fixing Heavy Collar for GI Pipes 50MM (Page No. XLVII, Sl NO.2, PWD SR-2018-19	No's	41	56.00			**2296.00**	180.00	**413280.00**
22	Supplying of submersible pump cable 1X3X6..0 Sq.mm (Page No. XLVII, Sl NO. 8, PWD SR-2018-19	Mtr							
			10	700.00			**7000.00**		
			41	700.00			**28700.00**		
							35700.00	144.00	**5140800.00**

	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
23	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No. XLVII, Sl NO. 13, PWD SR 2018-19	No.							
			5				**5.00**		
			41				**41.00**		
							46.00	21000.00	**966000.00**
24	Supplying & delivery of brand 50mm Gate Valve. (PWD SR 18-19, P.NO.XLVII Sl.no, 15	No's							
			41				**41.00**	1800.00	**73800.00**
25	Supplying & delivery of brand 50mm Non Return Valve. (PWD SR 18-19, P.NO.XLVII Sl.no, 16	No's							
			41				**41.00**	1800.00	**73800.00**
26	Supplying and fixing MCB (P.NO - XLVII, SL.NO - 19, PWD SR 18-19)	No's							
			41				**41.00**	900.00	**36900.00**
27	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications (P.NO - 6, I.NO - 2.3, PWD SR 18-19)	Cum							
			41	348.00	0.60	0.75	**6420.60**		
							6420.60	316.94	**2034945.00**
	Basic Rate	299.00							
	6% area weightage	17.94							
	Total	316.94							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
28	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.NO - 94, I.NO - 13.73.2, PWD SR 18-19)	Mtr							
			41	348.00			**14268.00**		
							14268.00	394.32	**5626158.00**
	Basic Rate	372.00							
	6% area weightage	22.32							
	Total	394.32							
29	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.NO - 7, I.NO - 2.11, PWD SR 18-19)	Cum							
			41	348.00	0.60	0.75	**6420.60**		
							6420.60	128.26	**823506.00**
	Basic Rate	121.00							
	6% area weightage	7.26							
	Total	128.26							
30	BESCOM Deposit charges	No's	41				**41.00**	16000.00	**656000.00**
		Total of Other SR Items including GST Unit Rate							**13651998.00**
		Total of PWD SR 2018-19 Items							**27176819.00**
32	For 12% GST for Only PWD SR-2018-19 items								**3261218.00**
33	Preparation of DPR (1%)								**450000.00**
34	PMC (1%)								**450000.00**
35	Miscellaneous and Unforeseen Charges	L/S							**9965.00**
								Total	**45000000.00**
									Rs. Four Crore Fifty Lakhs Only

CERTIFICATE :

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR 2018-19, PRED and BWSSB SR of Rural Engineering Department
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Bruhat Bangalore Mahanagara Palike

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike

Executive Engineer
Bruhat Bangalore Mahanagara Palike

Administrative Approval
Accorded For Rs.450 lakhs
Head of A/C ...P...
CER NO :....18..... Dt:.02/07/2020

E.E. (Project)

Technical Sanction
Accorded For Rs.450 Lakhs
Head of A/C ...P...
CER NO :....19..... Dt:7/5/19

TA

CE (YNK)